

## **INTEGRATED PAPER COMPRISING FIBRILLATED FIBERS AND ACTIVE AGENTS IMMOBILIZED THEREIN**

### **Abstract**

Disclosed is an integrated paper wherein the paper has capabilities and functionalities provided by both the fiber and the active agent ingredients, and a method of immobilizing the active agents within the integrated paper. The tight pore structure of the integrated paper of the present invention, a mean  
5 pore diameter of less than about 2 microns, provides short diffusion distances from a fluid to the surface of the paper ingredients by adsorption or diffusive interception making it an excellent medium for fluid filtration. The integrated paper of the present invention can further include a microbiological interception enhancing agent. The integrated paper can be formed using,  
10 preferably, wet laid paper-making processes for speed and efficiency. Also disclosed are devices utilizing the integrated paper useful in fluid filtration.